1. **Are the appliances required to be in a separate or room before you pull combustion air from outside?**
   The requirements associated with ***Rooms Containing Fuel Burning Appliances*** **Section R402.4.4** only applies "*where open air ducts provide combustion air to open fuel burning appliances*". When sealed combustion appliances are installed that pulls combustion air from outside, this Code Section does not apply.

2. **What are some safety/health issues that arise from using indoor air for combustion for water heaters?**
   Although it isn't specifically a code requirement, pulling combustion air from *inside* the home can contribute to putting the home into a negative pressure situation that can cause open combustion water heaters and/or fireplaces to backdraft. These situations contribute to increases in Carbon Monoxide in a home.

3. **Are these savings over the increased costs of the requirements or just savings compared to previous standards?**
   The Energy Assistance Division of NDEE, as in previous national Energy Code updates, had a comparison evaluation completed to determine the energy cost savings benefit to the state and new buildings owners of updated the Nebraska Energy Code. That study showed that, on average, home owners across the state would have a *reduction* in their new home ***energy cost*** of $165 annually. An additional evaluation was completed that included an ***incremental cost*** report showing an estimated cost for building to the requirements of between $2973- $4305, in whole providing a simple payback in energy savings of 18 to 26. That evaluation is available on the NDEE website at the link below:
   https://neo.ne.gov/services/codes/pdf/IECC2018IncrementalCostReport.pdf

4. **Who inspects everything?**
   Who performs Energy Code compliance inspections is based on where the building is located and if it is located in a local code jurisdiction that has adopted the Nebraska Energy Code. If the building in not constructed in a local code jurisdiction that has adopted the Nebraska Energy Code; the building owner may request a compliance inspection from NDEE staff.

5. **Comment from attendee: You must install the Combustion Air pipe to the outside unlike what was shown in the slide where they were pulling the air from inside the room with the water heater. The furnace (shown on slide #18) is a sealed combustion.**
   True, the unit showed in the slide is a sealed combustion unit that "in best practice" should be pulling air from outside of the building envelope. However, the code mandates that installations be completed "as per manufacturer installation instructions". Some manufacturers are specifically allowing this type of installation and NDEE staff members have seen more than a few types of this installation.

6. **Please explain the sizing formula on determining the size of continuous ventilation needed. I believe it is sq. footage, # of bedrooms plus 1**
   ASHRAE 62.2 is now part of code (Mechanical and Energy) requirements and the appropriate formulas are in the ASHRAE standard. I do recommend looking at the REDCalc option at: https://www.redcalc.com/ashrae-62-2-2016/.It provides a no-cost ventilation tool and summary information that helps you to understand the ventilation requirements.

7. **Need that info on google search app name she mentioned earlier.**
   See #6 regarding ASHRAE 62.2 requirements. I am not sure what other search you referenced

8. **Provide links to google search and other one mentioned during the webinar.**
   See #6. See also the Mechanical Provisions webinar presentation on the NDEE website for additional resource links.

9. **Does an economizer on a roof top unit count as an independent source for outside air?**
   I defer this question to the 2018 IECC Mechanical Provisions scheduled for June 3, 2020. Bruce Hauschild will be best able to discuss the code requirements associated with economizers.

10. **If a local jurisdiction wants to opt out of some portions of the code how long does it take for the Energy Office to approve those items if they include the economic impact?**
    Nebraska Statute 81-1618 doesn't really establish a time-frame "*Any county, city, or village which adopts and enforces a local energy code may waive a specific requirement of the Nebraska Energy Code when meeting such requirement is not economically justified. The local code authority shall* ***submit to the department its analysis for determining that a specific requirement is not justified. The department shall review such analysis and transmit its findings and conclusions to the local code authority within a reasonable time.*** *The local code authority shall submit to the department its explanation as to how the original code or any revised code addresses the issues raised by the department. After a local code authority has submitted such explanation, the authority may proceed to enforce its local energy code.*"
    Generally technical responses will be made available within 30 calendar days, depending on documentation complexity and other agency concerns.

11. **What is ASHRAE and how is that different from the IECC 2018 codes that the State has adopted?**
    ASHRAE 90.1 is a compliance option for *Commercial Buildings* and is referenced as such in the 2018 IECC, but it doesn't include residential requirements. Adopting the 2018 IECC establishes minimum standards for both Commercial and Residential buildings, including the ASHRAE option, within one code book.